

What is claimed is:

1. A device (1) for control of an internal combustion engine (500) at a start,
wherein
a recording means (420) determines the position of a piston of a first cylinder entering
5 compression or an intake phase before the start of the internal combustion engine, and
a calculation means (410) specifies a starter torque as a function of this piston position
before the start of the internal combustion engine.
2. The device (1) as recited in Claim 1,
wherein
10 the calculation means (410) specifies a course of the starter torque over time as a
function of the piston position.
3. The device (1) as recited in Claim 2,
wherein
the calculation means specifies a course of a combustion torque over time as a function
15 of the specified course of the starter torque over time.
4. The device (1) as recited in Claim 3,
wherein,
before a start of the internal combustion engine, the calculation means specifies starter
and combustion torques for a preferred engine run-up, and, after the start of the internal
20 combustion engine has begun, a control means (430) monitors the engine run-up and, if
deviations from the preferred engine run-up are detected, starter and/or combustion
torques are adjusted in order to attain the preferred engine run-up.
5. The device (1) as recited in at least one of the Claims 3 through 4,
wherein
25 the combustion torque is specified by ignition parameters and/or injection parameters.
6. The device (1) as recited in at least one of the preceding Claims,
wherein
the recording means (420) detects, via a sensor, the absolute angular position of the

crankshaft of the internal combustion engine before a start of the internal combustion engine.

7. The device (1) as recited in at least one of the preceding Claims,
wherein

5 the calculation means (410) specifies the starter torque such that a fuel injected into the cylinder is distributed homogeneously.

8. The device (1) as recited in at least one of the preceding Claims,
wherein

10 the calculation means (410) specifies the starter torque such that auto ignition of the fuel injected into the cylinder is prevented.

9. The device (1) as recited in at least one of the Claims 2 through 8,
wherein

15 the calculation means (410) specifies the starter torque such that the starter torque has a local maximum when a piston of a cylinder in the compression stroke passes through top dead center.

10. The device (1) as recited in at least one of the preceding Claims,
wherein

a calculation means (410) specifies an instant and/or a crankshaft angle at which the starter is retracted.

20 11. The device (1) as recited in Claim 10,
wherein

the control means (430) monitors an engine speed and, if a minimum engine speed is exceeded, it retracts the starter, at the latest, when a piston whose cylinder is in the compression stroke is at top dead center.

25 12. A method for control of an internal combustion engine at a start,
wherein,

before the start of the internal combustion engine, a position of a piston of a cylinder which is beginning compression or entering an intake phase is determined, and a starter

torque is specified as a function thereof.

13. The method as recited in Claim 12,

wherein

a course of the starter torque over time is specified as a function of the piston position.

5 14. The method as recited in Claim 13,

wherein

controlled variables for a course of a combustion torque over time are specified as a function of the specified course of the starter torque over time.

15. The method as recited in at least one of the Claims 12 through 14,

10 wherein,

before a start of the internal combustion engine, starter and combustion torques for a preferred engine run-up are specified, and the engine run-up is monitored when the start of the internal combustion engine begins and, if deviations from the preferred engine run-up are detected, starter and/or combustion torques are adjusted in order to

15 attain the preferred engine run-up.